

SensorVision Tutorial

The basics for setting up a sensor application using the existing TMM files and the forward looking infra red (flir) atmospheric database.

There are six basic steps:

- Invoke lynx
- Create an object with TMM textures (see TMM tutorial)
- Add the object to the scene
- Configure your sensor
- Add the sensor to the observer
- Run Active Preview.

Step one: Invoke LynX.

On the command line type 'lynx'

Step two: Create an object with TMM textures

From the Icon Column, select the 'object' icon

From the object's pull down menu select 'New'

When prompted name the object 'town'

Assign /usr/local/PSI/demo/town.flt as the geometry file.

Note: town.flt has already gone through the texture material mapping process.

The TMM file must exist in the same directory as the textures. This process is managed by another tool, the Texture Material Mapper which can be purchased from MultiGen-Paradigm Inc.

Step three: Add the object to the scene

From the Icon Column, select the 'scene' icon

Left mouse click on the left facing arrow of the 'Object' list widget. This will display a list of available objects to add to the scene. In this case, you only have one object, 'town'.

Select the 'town' and select 'ok' which will complete the process.

Step four: Configure your sensor

From the icon column, select the 'sensor' icon

From the 'sensor' pull down menu select 'New' to create a new sensor instance. When prompted, name the sensor 'sensor 1' (Note: the name is user defined).

Select an observer to use the sensor.

From the SensorVision pull down menu select 'Overrides'

On the 'Overrides' dialog box enable the Conversion Factor checkbox.

Note: This is necessary for seeing town.flt in SensorVision due to a errant lightpoint in the .flt file.

From the icon column select the 'database manager' icon

From the database manager pull down menu select 'SensorVision'

Set the MAT database (atmospheric conditions) to /usr/local/PSI/data/sp/mat/flir.mat

Leave the defaults for everything else.

Save the ADF as sensortutorial.adf

Run Active Preview.

Note: the initial startup time will increase due to the initialization of SensorVision. Be patient, it will start. The simulation should now render in shades of gray.

Sensorvision parameters can be adjusted during the active preview session.

Change the color, change the gain.

If you want to override any of the settings in the atmospheric database this can be done from the SensorVision 'overrides' pull down menu option.